

# **Operating Instructions**

# **Stopping Plugs Made of Metal**

> 8292



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## 2 General Information

#### 2.1 Manufacturer

R. STAHL Schaltgeräte GmbH Am Bahnhof 30 74638 Waldenburg Germany

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#### 2.2 Operating Instructions Information

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Subject to alterations.

# 3 Intended Use

The stopping plugs made of metal are suitable for installation in electrical equipment of type of protection flameproof encapsulation "Ex d" of groups IIA, IIB and IIC, of type of protection increased safety "Ex e" and of type of protection protected by enclosures "Ex tD".



The components are approved for use in hazardous areas of Zones 1, 2, 21 and 22.



# 4 General Safety Instructions

only if it is undamaged.

The devices must be used only for the permitted purpose. Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision. Any alterations or modifications to the device are not permitted. Operate the component

#### **⚠ WARNING**

Installation, maintenance, overhaul and repair may only be carried out by appropriately authorised and trained personnel.

#### Observe the following information during installation and operation:

- Any damage can invalidate the explosion protection
- National and local safety regulations
- ▶ National and local accident prevention regulations
- ▶ National and local assembly and installation regulations (e.g. IEC/EN 60079-14)
- Generally recognized technical regulations
- ▶ Safety instructions in these operating instructions
- ► Characteristic values and rated operating conditions on the rating and data plates
- ▶ Additional instruction plates fixed directly to the device
- ➤ The wall surface and that of the components should be kept clean, even (parallel) and grooveless in order to ensure the IP type.
- Secure the components against twisting and loosening.
- ▶ National regulations in the country of use
- ► Compliance with the permitted temperatures in accordance with IEC/EN 60079-0
- ▶ Threads must not be damaged
- ▶ If seals are used, they must not be damaged

# 5 Conformity to Standards

The relevant standards are listed in the EC Declaration of Conformity or IECEx Certificate of Conformity. These documents are available for download in the download area on the internet page www.stahl-ex.com.

# 6 Transport and Storage

Transport and storage are only permitted in the original packing.

#### **Technical Data**

Global (IECEx)

Gas and dust IECEx SIR 10.0159 X

> Ex d IIC Ex e II Ex d I Ex e I

Ex tD A21 IP6X

Europe (ATEX)

Gas and dust Sira 10 ATEX 1313 X

⑤ II 2 G Ex d IIC
 ⑥ II 2 G Ex e II
 ⑥ II 2 G Ex d I
 ⑥ II 2 G Ex e I

II 2 D Ex tD A21 IP6X

Ambient conditions

Operation temperature

-60 ... +200 °C

Mechanical data

Degree of protection

IP66

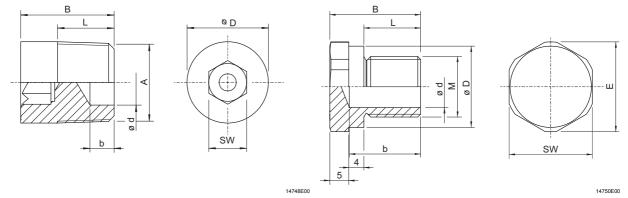
Material

brass, nickel-plated brass, stainless steel (316L)

#### **Dimensions** 8

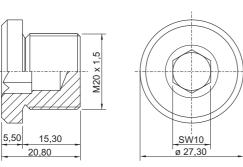
Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

Note: for the dimensions, see selection table

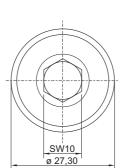


Stopping plug 8292/12

#### Stopping plug 8292/11



Stopping plug 8292/13





14750E00

Version	Thread size	Dime	nsions	[mm]				Order number	Weight	
		В	l D	Ιb	d		lL	A/F		kg
Stopping plug,	3/8" NPT	20	17			_	15	10	8292/11-BS-3/8" NPT	0.150
NPT,	1/2" NPT	25	22	10	1	2	20	10	8292/11-BS-1/2" NPT	0.100
hexagon socket,	3/4" NPT	25	27	10	1	8	26	10	8292/11-BS-3/4" NPT	0.125
brass	1" NPT	30	34	15	2	5	16	10	8292/11-BS-1" NPT	0.150
	1 1/4" NPT	30	42	15	3	2	26	10	8292/11-BS-1 1/4" NPT	0.150
A STATE OF THE PARTY OF THE PAR	1 1/2" NPT	31	49	16	3	9	26	10	8292/11-BS-1 1/2" NPT	0.150
	2" NPT	32	61	17	4	9	27	14	8292/11-BS-2" NPT	0.200
	2 1/2" NPT	45	73	30	5	7	39	14	8292/11-BS-2 1/2" NPT	0.200
14491E00	3" NPT	46	89	31	7	3	39	14	8292/11-BS-3" NPT	0.250
14401200	3 1/2" NPT	48	102	33	8	6	42	14	8292/11-BS-3 1/2" NPT	0.275
	4" NPT	49	115	34	9	9	43	14	8292/11-BS-4" NPT	0.300
Stopping plug,	3/8" NPT	20	17		-  -	-	15	10	8292/11-BN-3/8" NPT	0.150
NPT,	1/2" NPT	25	22	10	1	2	20	10	8292/11-BN-1/2" NPT	0.100
hexagon socket,	3/4" NPT	25 27		10	1	8	20	10	8292/11-BN-3/4" NPT	0.125
nickel-plated brass	1" NPT	30 34		15	2		25	10	8292/11-BN-1" NPT	0.150
	1 1/4" NPT	30	42	15	3		26	10	8292/11-BN-1 1/4" NPT	0.150
No. 1880	1 1/2" NPT	31	49	16	3		26	10	8292/11-BN-1 1/2" NPT	0.150
	2" NPT	32	61	17	4	-	27	14	8292/11-BN-2" NPT	0.200
The state of the s	2 1/2" NPT	45	73	30	5		39	14	8292/11-BN-2 1/2" NPT	0.200
14529E00	3" NPT	46	89	31		3	42	14	8292/11-BN-3" NPT	0.250
	3 1/2" NPT	48	102	33	8	_	43	14	8292/11-BN-3 1/2" NPT	0.275
	4" NPT	49	115	34	9	9	43	14	8292/11-BN-4" NPT	0.300
Stopping plug,	3/8" NPT	20	17		-  -	_	15	10	8292/11-SS-3/8" NPT	0.150
NPT,	1/2" NPT	25	22		-  -	_	20	10	8292/11-SS-1/2" NPT	0.100
hexagon socket, stainless steel	3/4" NPT	25 27		-	-  -	_	20	10	8292/11-SS-3/4" NPT	0.125
Stairliess steel	1" NPT	30	34		-  -	_	25	10	8292/11-SS-1" NPT	0.150
	1 1/4" NPT	30	42		-  -	_	26	10	8292/11-SS-1 1/4" NPT	0.150
No. 1650 Co.	1 1/2" NPT	31	49		-  -	-	26	10	8292/11-SS-1 1/2" NPT	0.150
	2" NPT	32	61		-  -	-	27	14	8292/11-SS-2" NPT	0.200
The state of the s	2 1/2" NPT	45	73		-  -	_	40	14	8292/11-SS-2 1/2" NPT	0.200
14529E00	3" NPT	46	89		-  -	_	42	14	8292/11-SS-3" NPT	0.250
	3 1/2" NPT	48	102		-  -	_	42	14	8292/11-SS-3 1/2" NPT	0.275
	4" NPT	49	115		-  -	-	46	14	8292/11-SS-4" NPT	0.300
Version	Thread size	Dime	nsions	[mm]					Order number	Weight
		В	D	l b	d	l L	İΕ	A/F		kg
Stopping plug,	M16 x 1.5	24	22	22	11	15	24	22	8292/12-BN-M16x1.5	0.050
metric / NPT,	M20 x 1.5	24	24	22	15	15	26	24	8292/12-BN-M20x1,5	0.075
hexagon head,	M24 x 1.5	24	30	18	20	15	32	30	8292/12-BN-M24x1,5	0.075
nickel-plated brass	M25 x 1.5	24	30	22	20	15	32	30	8292/12-BN-M25x1,5	0.075
700	M32 x 1.5	24	40	19	27	15	40	36	8292/12-BN-M32x1,5	0.100
A STATE OF THE PARTY OF THE PAR	M33 x 1.5	24	36	18	27	15	39	36	8292/12-BN-M33x1,5	0.100
183	M40 x 1.5	24	46	19	35	15	50	46	8292/12-BN-M40x1,5	0.150
Sales Co.	M42 x 1.5	24	46	20	35	15	50	46	8292/12-BN-M42x1,5	0.150
11158E00	M48 x 1.5	24	54	18	41	15	60	55	8292/12-BN-M48x1,5	0.175
	M50 x 1.5	24	55	19	43	15	59	55	8292/12-BN-M50x1,5	0.175
	M56 x 1.5	24	59	19	48	15	65	60	8292/12-BN-M56x1,5	0.200
	M63 x 1.5	24	70	19	55	15	76	70	8292/12-BN-M63x1,5	0.250
	M75 x 1.5	24	80	19	70	15	86	80	8292/12-BN-M75x1,5	0.300
	M90 x 2	24	95	19	83	15	103	95	8292/12-BN-M90x2	0.350
	M100 x 2	24	108	19	93	15	117	108	8292/12-BN-M100x2	0.400
	1/2" NPT	29	24	26	13	20	26	24	8292/12-BN-1/2" NPT	0.100
	3/4" NPT	30	30	27	18	15	32	30	8292/12-BN-3/4" NPT	0.125
	1" NPT	34	36	31	24	16	39	36	8292/12-BN-1" NPT	0.150
	1 1/4" NPT	35	55	30	28	17	59	55	8292/12-BN-1 1/4" NPT	0.150
	1 1/2" NPT	35	46	30	34	17	50	46	8292/12-BN-1 1/2" NPT	0.150
	2" NPT	36	65	31	46	27	70	65	8292/12-BN-2" NPT	0.200
	2 1/2" NPT	49	80	44	57	40	86	80	8292/12-BN-2 1/2" NPT	0.200
	3" NPT	51	98	46	72	25	107	99	8292/12-BN-3" NPT	0.250
	3 1/2" NPT	52	108	47	84	37	117	108	8292/12-BN-3 1/2" NPT	0.275
	4" NPT	53	127	48	97	45	137	127	8292/12-BN-4" NPT	0.300
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Version	Thread size	Dime	nsion	s [mm]			Order number	Weight		
		B D 1		b	b d		Ε	A/F		kg
Stopping plug,	M16 x 1.5	24	22				24	22	8292/12-SS-M16x1,5	0.050
metric,	M20 x 1.5	24	24			15	26	24	8292/12-SS-M20x1,5	0.075
hexagon head,	M25 x 1.5	24	30			15	32	30	8292/12-SS-M25x1,5	0.075
stainless steel	M32 x 1.5	24	40	I		15	40	36	8292/12-SS-M32x1,5	0.100
N. 145302-	M40 x 1.5	24	46	46 15 50		15 50 46 8292/12-SS-M40x1,5		0.150		
A STANGE OF THE	M50 x 1.5	24	55			15	59	55	8292/12-SS-M50x1,5	0.175
	M56 x 1.5	24	59	I		15	65	60	8292/12-SS-M56x1,5	0.200
Sally Res	M63 x 1.5	24	70			15	76	70	8292/12-SS-M63x1,5	0.250
11158E00	M75 x 1.5	24	80			15	86	80	8292/12-SS-M75x1,5	0.300
	M90 x 2	24	95			15	103	95	8292/12-SS-M90x2	0.350
	M100 x 2	24	108			15	117	108	8292/12-SS-M100x2	0.400
Version	Thread size	Dimensions [mm]							Order number	Weight
		В		D	l l	L	. A/F			kg
Stopping plug, metric, hexagon socket, nickel-plated brass	M20 x 1.5	20.8		27.3		15.3	10		8292/13-BN-M20x1,5	0.075
14482E00										

#### 9 Installation

#### **⚠ WARNING**

#### Risk of explosion due to incorrectly installed components!

- ▶ If components are installed incorrectly, explosion protection is no longer guaranteed.
- ▶ For Ex d applications, at least 5 undamaged thread turns must match.
- ► For Ex e applications, the wall surface and that of the component should be kept clean, even (parallel) and grooveless in order to ensure the IP type.

#### **⚠ WARNING**

#### Risk of explosion due to loosened or removed stopping plugs!

- ▷ If bores are sealed incorrectly, explosion protection is no longer guaranteed!
- ▶ Prior to commissioning and during operation of the device, it must be ensured that all bores are sealed correctly with suitable stopping plugs.
- ▶ Make sure that the threads of stopping plugs and threaded bores are undamaged.
- Secure the stopping plugs against twisting and loosening.

#### Recommended tightening torques

Thread, NPT	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	
Nm	15	19	23	28	32	37	43	50	58	67	78	
Thread, metric	M10	M12	M16	M20	M25	M32	M40	M50	M63	M75	M90	M100
Nm	15	16	21	24	27	31	36	44	53	60	70	78



The tightening torque depends on the seal and the sealing material (optional), the material and the thread length.



# 10 Maintenance, Overhaul and Repair

#### **⚠ WARNING**

# Risk of explosion due to loosened or removed stopping plugs!

- ▶ Prior to commissioning and during operation of the device, it must be ensured that all bores are sealed correctly with suitable stopping plugs.

#### The following details must be checked during maintenance

- X Components are held securely in place
- X Compliance with the permissible temperatures
- X Damage to the thread and to the seal, if seals are used

## 11 Accessories and Spare Parts

#### **↑** WARNING

Use only original R. STAHL accessories and spare parts.

# 12 Disposal

The national waste disposal regulations have to be observed.

# 13 EC Declaration Of Conformity

# EG-Konformitätserklärung

EC Declaration of Conformity Déclaration de Conformité CE



C€ 0158

R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany erklärt in alleiniger Verantwortung, declares in its sole responsibility, déclare sous sa seule responsabilité,

dass das Produkt that the product que le produit

Typ, type, type:
Kennzeichnung, marking, marquage:

mit der EG-Baumusterprüfbescheinigung:

under EC-Type Examination Certificate: avec Attestation d'examen CE de type:

Verschlussstopfen Stopping plug Bouchon

8292/11-..-.., 8292/12-..-.., 8292/13-..-...

II 2GD Ex d IIC / Ex e II / Ex tD A21 IP6X I M2 Ex d I / Ex e I

SIRA 10ATEX1313X (Sira Certification Service Rake Lane, Eccleston, Chester, CH4 9JN, England)

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt which is the subject of this declaration, is in conformity with the following standards or normative documents

Bestimmungen der Richtlinie	Nummer sowie Ausgabedatum der Norm
Terms of the directive	Number and date of issue of the standard
Prescription de la directive	Numéro ainsi que date d'émission de la norme
94/9/EG: ATEX-Richtlinie	EN 60079-0:2006
94/9/EC: ATEX Directive	EN 60079-1:2004
94/9/CE: Directive ATEX	EN 60079-7:2007

EN 50281-1-1:1998

auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants

Waldenburg, 2011-10-13

Ort und Datum Place and date Lieu et date J.-P. Rückgauer
Leiter Entwicklung und Technik
Director Design and Technology
Directeur Développement et Technique

Dr. S. Jung

Leiter Qualitätsmanagement Director Quality Management Dept. Directeur Dép. Assurance de Qualité

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